

REMARKS

[0001] Applicant's attorney respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-2 and 5-27 are presently pending. Claims 1, 13-21, and 25-27 are amended herein. Claims 3 and 4 are canceled herein.

Statement of Substance of Interview

[0002] The Examiner graciously talked with me—the undersigned representative for the Applicant—on Friday, January 9, 2009. Applicant's attorney greatly appreciates the Examiner's willingness to talk. Such willingness is invaluable to both of us in our common goal of an expedited prosecution of this patent application.

[0003] During the interview, I discussed how the claims differed from the cited references, namely *Smeets* and *Butler*. Without conceding the propriety of the rejections and in the interest of expediting prosecution, I also proposed several possible clarifying amendments. Further, I discussed the § 101 rejections as well and proposed several amendments to address the § 101 rejections.

[0004] Applicant herein amends the claims in the manner discussed during the interview. Accordingly, Applicant submits that the pending claims are allowable over the cited art of record for at least the reasons discussed during the interview.

Formal Request for an Interview

[0005] If the Examiner's reply to this communication is anything other than allowance of all pending claims, then I formally request an interview with the Examiner. I encourage the Examiner to call me—the undersigned representative

for the Applicant—so that we can talk about this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

[0006] Please contact me to schedule a date and time for a telephone interview that is most convenient for both of us. While email works great for me, I welcome your call as well. My contact information may be found on the last page of this response.

Allowable Subject Matter

[0007] Applicant would like to thank the Examiner for indicating allowability of claims 4 and 8-14. These claims have not been substantively amended herein, and therefore remain allowable.

Substantive Matters

Claim Rejections under § 112 1ST ¶

[0008] Claims 20 and 26 are rejected under 35 U.S.C. § 112, 1st ¶. Applicant's attorney respectfully traverses this rejection. Furthermore, in light of the amendments presented herein, Applicant's attorney submits that these rejections are moot. Accordingly, Applicant's attorney asks the Examiner to withdraw these rejections.

Claim Rejections under § 101

[0009] Claims 1-10 and 13-27 are rejected under 35 U.S.C. § 101. Applicant respectfully traverses this rejection. Furthermore, in light of the amendments presented herein, Applicant respectfully submits that these claims comply with the patentability requirements of §101 and that the §101 rejections should be withdrawn. Applicant further asserts that these claims are allowable. Accordingly, Applicant asks the Examiner to withdraw these rejections.

[0010] If the Examiner maintains the rejection of these claims, then Applicant requests additional guidance as to what is necessary to overcome the rejection.

Claim Rejections under § 102

[0011] The Examiner rejects claims 1-3, 5-7, and 15-27 under § 102. For the reasons set forth below, the Examiner has not shown that the cited references anticipate the rejected claims.

[0012] Accordingly, Applicant respectfully requests that the § 102 rejections be withdrawn and the case be passed along to issuance.

[0013] The Examiner's rejections are based upon the following references:

- **Butler 6,678,707:** *Butler* US Patent No. 6,678,707 (issued January 13, 2004); and
- **Smeets 6,253,236:** *Smeets* US Patent No. 6,253,236 (issued November 2, 2007).

Anticipation Rejections

[0014] Applicant submits that the anticipation rejections are not valid because, for each rejected claim, no single reference discloses each and every element of that rejected claim.¹ Furthermore, the elements disclosed in the single reference are not arranged in the manner recited by each rejected claim.²

Based upon Butler 6,678,707

[0015] The Examiner rejects claims 1-3, 5-7, and 15-27 under 35 U.S.C. § 102(e) as being anticipated by Butler 6,678,707. Applicant respectfully traverses the rejection of these claims. Based on the reasons given below, Applicant asks the Examiner to withdraw the rejection of these claims.

Independent Claim 1

[0016] Claim 1 has been amended to include the recitations of claims 3 and 4 wherein claim 4 was indicated to be allowable by the Examiner. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

¹ "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); also see MPEP §2131.

² See *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Dependent Claims 2-3 and 5-7

[0017] These claims ultimately depend upon independent claim 1. As discussed above, claim 1 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Independent Claims 15, 26, and 27

[0018] Applicant submits that Butler 6,678,707 does not anticipate these claims because it does not disclose the following elements as recited in these claims:

- "a chaos-based pseudo-random value[.]"

[0019] The Examiner indicates (Action, p. 4) the following with regard to this claim:

As per claims 1,15,16,18,19,21,26 and 27, Butler discloses in figure 8 a generation of a chaos-based pseudo-random sequence in an encryption application, including defining a chaotic map (402-412) for generating a pseudo-random sequence of integer numbers in a certain interval, choosing a seed (the initial states) for the pseudo-random sequence of integer numbers, and generating numbers of the pseudo-rand sequence, defining a function (800) on the interval whose inverse has a plurality of branches and calculating numbers of a chaos-based pseudo-random sequence by applying the function to corresponding integer numbers of the pseudorandom sequence as claimed.

[0020] Each of these claims recites “a chaos-based pseudo-random value” as well as various additional recitations relevant to each claim focus. As discussed above, Butler 6,678,707 simply does not disclose generating numbers of a pseudo-random sequence and calculating numbers having a chaos-based pseudo-random value. Quite differently, Butler 6,678,707 addresses the problem of generating truly random numbers (col. 4, lines 35-40). As a result, Butler 6,678,707 cannot be used in cryptographic codes in which the receiver of the data needs to reconstruct the random number sequence to decrypt the data because Butler 6,678,707 generates a sequence of truly random numbers that is unpredictable. Generating a truly random sequence of numbers that cannot be repeated (as taught in Butler 6,678,707) is not the same generating chaos-based pseudo-random values (as recited in these claims and supported in the application at col. 6, lines 6-9).

[0021] Consequently, Butler 6,678,707 does not disclose all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 16-25

[0022] These claims ultimately depend upon independent claim 15. As discussed above, claim 15 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Based upon Smeets 6,253,236

[0023] The Examiner rejects claims 1-3, 5-7, and 15-27 under 35 U.S.C. § 102(e) as being anticipated by Smeets 6,253,236. Applicant respectfully traverses the rejection of these claims. Based on the reasons given below, Applicant asks the Examiner to withdraw the rejection of these claims.

Independent Claim 1

[0024] Claim 1 has been amended to include the recitations of claims 3 and 4 wherein claim 4 was indicated to be allowable by the Examiner. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 2-3 and 5-7

[0025] These claims ultimately depend upon independent claim 1. As discussed above, claim 1 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Independent Claims 15, 26, and 27

[0026] Applicant submits that Smeets 6,253,236 does not anticipate these claims because it does not disclose the following elements as recited in these claims:

- “a chaos-based pseudo-random value[.]”

[0027] The Examiner indicates (Action, p. 4) the following with regard to this claim:

As per claims 1, 15, 16, 18, 19, 21, 26 and 27, Smeets discloses in figure 2 a generation of a chaos-based pseudo-random sequence in an encryption application including defining a chaotic map (20 I) for generating a pseudo-random sequence of integer numbers in a certain interval, choosing a seed (the initial states) for the pseudo-random sequence of integer numbers, and generating numbers of the pseudo-rand sequence (Z), defining a function $F(203)$ on the interval whose inverse has a plurality of branches and calculating numbers of a chaos-based pseudo random sequence by applying the function to corresponding integer numbers of the pseudo-random sequence as claimed.

[0028] Each of these claims recites “a chaos-based pseudo-random value” as well as various additional recitations relevant to each claim focus. As discussed above, Smeets 6,253,236 simply does not teach or, much less, is even cognizant of the concept of chaos-based pseudo-random value generation.

[0029] Consequently, Smeets 6,253,236 does not disclose all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 16-25

[0030] These claims ultimately depend upon independent claim 15. As discussed above, claim 15 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Conclusion

[0031] All pending claims are in condition for allowance. Applicant's attorney respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the **Examiner is urged to contact me before issuing a subsequent Action.**

Please call or email me at your convenience.

[0032] Any additional fees required as a result of this amendment have been paid from the below-referenced deposit account as filed herewith. Should further payment be required to cover such fees you are hereby authorized to charge such payment to Deposit Account No. 07-1897.

Respectfully Submitted,

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Dated: February 5, 2009

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